



**UNIVERSITY OF GOND, FACULTY OF VETIRNARY MEDECINE  
DEPARTEMENT OF ANIMAL PRODUCTION AND EXTENSION**

**ASSESMENT OF SHEEP PRODUCTION AND MARKETING SYSTEM IN GONDAR  
TOWN**

**SENIOR RESEARCH PROJECT REPORT**

**BY:-**

**YESHAMBEL HABTEMARIAM**

**and**

**BERIHUN KIBERT**

**MAY, 2015  
GONDAR, ETHIOPIA**

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**DEPARTMENT OF ANIMAL PRODUCTION AND EXTENSION**

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**SENIOR RESEARCH PROJECT REPORT SUBMITTED TO DEPARTMENT OF  
ANIMAL PRODUCTION AND EXTENSION, IN PARTIAL FULFILMENT OF THE  
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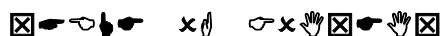
**and**

**BERIHUN KIBRET**

**ADVISOR: Mr. SHEWANGZAW ADDISU (MSc)**

**SIGNATURE: \_\_\_\_\_**

**MAY, 2015  
GONDAR, ETHIOPIA**



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## **LIST OF ABBREVIATION**

ADLI	Agricultural Development Led Industrializations
ARDO	Agricultural Rural Development Office
a.s. l.	Above Sea Level
CSA	Central Statistics Agency
EARO	Ethiopian Agricultural Research Organization
ETB	Ethiopian Birr
FAO	Food And Agricultural Organization
HH	House Hold
IBC	Institute of Biodiversity Conservation
IMPS	Improving Productivity And Market Success of Ethiopian Farmer
N	Number of Respondent

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## **ABSTRACT**

*The study was conducted in Gondar town from February to May, 2015 with the objective to assess sheep production and marketing system in Gondar town. Four representative kebeles (Keble 18, kebele 20, Keble 15 and Keble 16) were selected by simple random sampling technique out of the selected Keble 30 sheep producers were selected purposively. The study was carried out through informal and formal surveys. The purpose of sheep production by producer in the study area was for cash income (43.3%), home slaughter (26.67%), cash income and meat (23.33%) and manure (6.67%). Producers on average had 4 heads of sheep ( $n = 30$ ) per household. The main feed sources for sheep in the area were natural pasture (60%) and crop residue (40%). In addition, most producers supplement salt (20%), food left over (16.67%), nuge cake (16.67%), dashen brewery by-product (10%) and 10% atella (a local beer residue). There was feed shortage problem both during the dry and rainy seasons in the study area. Producers' sold sheep at time of Easter, New Year, Christmas and during shortage of income. Sheep from the same village and neighboring woreds entered into the town for marketing. The main sheep production constraints were grazing land and feed shortage (40%), sheep disease (26.67%), labor shortage (16.67%), market problem (10%) and lack of extension service (6.67%). Therefore, from the present study it can be conclude that grazing land and feed shortage is the main constraints of sheep production and small traders, butchers, restaurants, and consumers are the main stakeholders of sheep market in the area.*

**Key Words:** Constraints, Gondar, Market, Sheep Production

## 1. INTRODUCTION

Ethiopia has a large livestock resource than most countries in Africa and more than 80% of the human population depends on agriculture for their livelihoods (Azage, 2005) and usually keep livestock as pastoralists and in mixed crop livestock systems. The agricultural sector contributes 41.4% of the Gross Domestic Product of the country (World Bank, 2004). There are about 26.1 million and 21.7 million sheep and goats population heads in the Ethiopia respectively (CSA, 2008). According to the report of Gondar ARDO (2008) cattle population of the area was 2,407,544, sheep population 11,673, goat 5154, poultry 24,194 and Equines 6,485. They are important components of the livestock subsector and are sources of cash income and play a vital role as sources of meat, milk and wool for smallholder keepers in different farming systems and agro-ecological zones of the country (FAO, 2009). They are also sources of foreign currency (Berhanu *et al.*, 2006).

Moreover, due to their high fertility, short generation interval, adaptation in harsh environment and their ability to produce in limited feed resource they are considered as investment and insurance (Tsedeke, 2007). Efforts geared towards improving sheep production in Ethiopia have to be made through developing situation specific development interventions. The feasibility of cropping and the type of crops to be produced depend on climatic and biotic factors. The extent of cropping and the type of crop, in turn, determine the quantity, quality and distribution of animal feed resources throughout the year. On the other hand, the feed resource base and disease challenge determine the animal production system of the area (Adugna and Aster, 2007).

Unlike the large potential of small ruminants in the country their productivity is low. There are various factors that contribute for low productivity: health constraints, feed shortage both in Quality and quantity, poor feeding and health management (Tsedeke, 2007; Getahun, 2008). Other contributing factors also include low genetic potential; policy issues (Zinash *et al.*, 2001) market and institutional problems and problem of credit facilities and others (Berhanu *et al.*, 2006). Although various research and development activities have been carried out in the past, no significant increase in productivity was achieved. Therefore, improvement programs are necessary to increase productivity and sustainable development of small ruminants in different

farming systems of the country in innovative approach so as to meet the demands of the human population. However, in order to improve the production systems and set a policy there was not documented information on sheep production and marketing system in Gondar town. Therefore, this study was conducted with the following objectives;

## 1.2. OBJECTIVE

### *1.2.1. General Objective*

This study was conducted to assess sheep production and marketing system in Gondar town.

### *1.2.2. Specific objective:-*

- To assess sheep feed source in Gondar town.
- To identify sheep production system and constraints in Gondar town.
- To assess sheep marketing in Gondar town.

## **2. LITERATURE REVIEW**

### **2.1 Genetic diversity and distribution of Sheep in Ethiopia**

Domestic sheep (*Ovis aries*) were the first ruminants to be domesticated in southwestern Asia (Iran and Iraq) between 10,000 and 6,000 BC and distributed in various ecological niches of the world. Ethiopia recognized as gateway for Africa to small ruminant from Asia (IBC, 2004), has 14 sheep breed ( Workneh *etal*,2004). Populations that have been identified based on a combination of their morphological appearance and management systems. Ethiopia has a diverse indigenous sheep population numbering 26.1 million Sheep contribute significantly to farm livelihoods, particularly where crop production is unreliable and where livestock is the mainstay of livelihoods (i.e., pastoral areas). In this case, practical guidelines are provided for the identification of sheep breeds of Ethiopia at the village level and for their sustainable utilization(CSA,2008).

Ethiopia possesses highly diversified and adapted indigenous sheep populations parallel to its highly diverse agro-ecology, ethnic communities and production systems. Indigenous sheep genetic resources have developed specific adaptations to survive and produce under adverse local environmental conditions and to perform better under low input system. As a result, they are suitable to be used in the traditional low-external input production system (IBC, 2004; Markos, 2006). According to Solomon Gizaw (2007) report Ethiopia have the following sheep breeds some of these are:semien ,sekota ,farta, tikur, menz, wollo, gumuz, washera, horro, adilo , arsi, bonga, afar, black head Somali and begait and those classification are based on their fat –tailed hair, fat tailed woll, fat-rumpled hair, thin tailed hair and woll types but,most indigenous breed of Ethiopia are hair types (they don't produce woll).

### **2.2. Sheep Production Systems in Ethiopia**

Sheeps in tropical Africa are kept under traditional extensive systems. In the arid and sub humid zones, cattle are reared with sheep and/or goats. In the humid zone, animals generally graze freely, with access to household available (Ademosun, 2003). Production systems are identified

on the basis of contribution of the livestock sub sector to the total household revenue. Most of Ethiopia sheep production systems are practice traditional. Accordingly, more than 50% of household income comes from livestock and in arid areas where Urban and peri-urban production system is practiced in town and cities by wage earners who invest cash on sheep production for short-term profit (Ibrahim1998). In pastoral system land assumes more importance whereas in agro pastoral, agricultural and Urban/peri-urban system labor is more important. As intensification increases, labor becomes more important than land. The urban system is capital intensive since farmers invest cash to buy sheep to fatten for sale during peak demand. In this system the high wage for labor is the main constraint (Ibrahim, 1998).

### **2.3. Sources and Feeding System of sheep**

Feeds are materials which after ingestion by the animals are capable of being digested, absorbed and utilized (McDonald *et al.*, 2002). In the commonly found mixed crop livestock farming system as in the highlands of Ethiopia, the feed resources available depend on the type and manner of crop production. In such areas, the major available feed resources are natural pasture, crop residues and crop aftermaths (Solomon *et al.*, 2008a, 2008b). To some extent agro-industrial by-products and cultivated improved forage crops are also used. The crop residues which are the major livestock feeds, particularly in the dry seasons provide 40 to 50% of the total annual livestock feed. The survey conducted on indigenous sheep type in Ethiopia revealed that in pastoral and agro-pastoral systems of Ethiopia; rangelands provided the only source of feed throughout the year. In agro-pastoralists supplement sheeps with thinning of maize and sorghum and crop residues during the wet and dry seasons. Perennial crops (enset and coffee) are common in areas with a high population density. The system of feeding is predominantly free grazing. Livestock feed scarcity is often the major cause of livestock mortality during drought in the Enset (*crop*-livestock mixed farming systems in the Kokossa district of the Bale highlands in southeastern Ethiopia (Desta, 2004).

Total feed demand depends on the overall local stocking rate, but the ratio of supply to demand varies across seasons and years as well as between individual farms (Leeuw, 2003). In the dry season, free-range sheep will only find dry vegetation or crop residues in the fields (stubble grazing). These may supply some energy, but the protein content is very low.

### **1.5. Nutrient Requirement of Sheep for Growth**

The nutrition of sheep is the most important factor affecting performance. Poor nutrition results in low rates of production, often defined by growth and reproduction. It also affects the immune system and the ability of an animal to fight disease. In extreme conditions of malnutrition, death can occur. In many animal production systems, approximately two-thirds of improvements in livestock productivity can be attributed to improved nutrition. In economic terms, feed cost accounts for about 70% of the total cost of livestock production (Gatenby, R.M., 2002).

A nutrient requirement of sheep depends on their physiological state and function and contains allowances for maintenance and production. The larger the animal, the more feed it needs to maintain its body function. As production increases, so does nutrient demand and feed requirement (Devendra, C. 1986). Energy, protein, lipids, mineral, vitamins and water are the main nutrients required by sheep similar to other animals. The nutrient requirements are the values considered necessary for maintenance, optimum production, and prevention of any signs of any nutritional deficiency (Roger C, et al 1997).

### **2.6. Sheep Marketing in Ethiopia**

Ethiopia adopted an Agricultural Development-led Industrialization (ADLI) strategy, which initially focused on food crops and more recently, the country has added market orientation to this strategy (Berhanu *et al.*, 2006). Increased availability and utilization of appropriate technologies, an effective and efficient service delivery system and, sustained demand for the agricultural outputs are critical in such market-oriented agricultural development efforts.

However, the infrastructural development is also rather limited which is a major bottleneck, only 17% of the rural population lives within 2 km of an all season road and only 0.4% has access to electricity (World Bank 2006).

Markets are important for agricultural growth and sustainable development. Lack of markets, or poor access to those markets that exist, not only affects farmers and livestock holders locally in rural areas, but is a drain on the potential of the entire country. Creating local and national markets and improved access to them, allows specialization and diversification into new agricultural products that make profits for rural households and decrease poverty and hunger. Marketing channel describes the movement of a product or commodity from the site of production to the place of consumption. It may include transportation, handling and storage, ownership transfers, processing, and distribution (Pinkerton, 2002).

The most used marketing channels individuals ranked as the most favored, then butcheries as the second most favored and middlemen as the third favored. The least favored was financial assistance policy projects while the rest were largely seen as unflavored. Cooperatives are none existent (Nsoso, 2004). The growing demand for sheep in local and international markets, the improving transportation infrastructure, and the experience of farmers in sheep keeping are practical opportunities to enhance the contribution of the sector. Furthermore, research on the complex cause–effect relationships is needed to derive policy implications (Getahun, 2006).

The marketing of sheep and sheep products in the tropics is very variable, and depends on location and prevailing production conditions. Traditional production trends tend to be associated with local marketing conditions. In the traditional marketing system, it is a small enterprise, the overhead cost is low and the products are sold in the simplest possible way. Labor is plentiful in rural area, but the capital investment is small, people will be prepared to pay higher prices and consume more meat (Devendra, 1982). Marketing enhance producers to focus more on their animal productivity. However, there are factors affecting livestock marketing and domestic livestock trade in Ethiopia and other neighboring countries. These problems are particularly pronounced in distant areas away from large cities and urban centers. These are poor infrastructures, high transport costs, taxation and intermediate costs. The existing livestock



markets are loosely integrated due to lack of sufficient market information. Thus, a market information system is required that allows stakeholders to get information on quantity and price, both on the domestic and foreign markets. Commercial transactions are dominated by the traders and largely to their advantages (Peter, 1998).

### **1.6. Major constraints of sheep in Ethiopia**

There are several sheep production constraints in the country. According to EARO (2001b), feed shortage, diseases and parasites, animal management, genotype and genetics and socio-economic and institutional constraints are the main problems in sheep production in the country. According to Abebe *et al.* (2000), feed shortage in the dry and rainy season, diseases, inadequate veterinary service and lack of capital are the main sheep production constraints in Lallomamma Mider District, North Shoa.

### 3. Material and Methods

#### 3.1. Description of the Study Area

The study was conducted from February to May, 2015 in Gondar town which was found in Amhara Regional State in north west Ethiopia. The Gondar town was located at 739 Km from Addis Ababa at an elevation of 2,220 m a.s.l. The city has a latitude and longitude of 12°36'N 37°28'E and 12.6°N 37.467°E respectively. Rain fall varies from 880-1172mm with the average annual temperature of 20.3°C. Human population of the town was 206,987 and administrative area 40.27km<sup>2</sup>. The area was characterized by two seasons, the wet season from June to September and dry season from October to May (Gondar ARDO, 2008).



Fig 3.1. Map of the study area

## **3.2 Sampling Methods and Data Collection**

### **3.2.1. Sampling techniques**

Based on geographical placement of the town the study was conducted using formal as well as informal survey methods and kebele was selected by using simple random sampling technique. On the next stage, house holders were selected by using purposive sampling technique.

### **3.2.2 Sampling Procedure and Data Collection**

The study was conducted by using the primary and secondary source of data collection. Method of relevant information was collected by preparing questionnaire and conduct with randomly select 30 sheep owner producer from Gondar town. The questionnaire was designed, pre-tested and modified before the commencement of the actual administration to check its clarity to respondents and appropriateness of the question.

### **3.2.3. Statistical Analysis**

The data on Feeding sources, Marketing, sheep production system and constraints were organized, summarized and analyzed using Excel.

## 4. RESULT AND DISCUSSION

### 4.1. Characteristics' of the respondent

General information of the sheep producers in Gondar town are indicated on Table 4.1. From the total of (N=30) respondents majority of the sheep owning households were male headed (93.3%) while only small proportions (6.6%) were headed by females. The educational level of the respondents in the study area was also different those include illiterate (23.3%), read and write level (26.7%), elementary school (13.3%), secondary school (13.3%), above secondary (10%), spiritual level (6.7%) and others no response (6.7%) look the table below.

Table 4.1. General information of the sheep producers in Gondar town

Gender	N	Percentage (%)
Male	28	93.4
Female	2	6.6
Age		
15-30	12	40
31-40	12	40
41-50	4	13.3
51-60	2	6.7
Educational level		
Illiterate	7	23.3
Read & write	8	26.7
Primary school	4	13.3
Secondary school	4	13.3
Above secondary	3	10
Spiritual	2	6.7
No response	2	6.7

#### 4.2. Sheep production system and purpose of rearing in the study area

Purposes of keeping sheep in study area are indicated on Table 4.2. The sheep production systems in the study area were peri urban system. On average sheep keeping per house hold were 4 heads. In this system feed resource were usually house hold wastes, market area wastes, food left over, by product, road and river side grazing. From the total of respondantes the purpose of sheep production on the study area were sale (cash income) (43.33%), meat (26.67%), sale and meat (23.3%) and for manure (6.67%). Easter, Meskel, New Year and Christmas were the main period on which producers slaughter sheep in the order of importance. Based on the informal survey result, male sheep at young age (from 4 to 12 months of age) were mostly slaughtered for home consumption.

Table 4.2. Purpose of keeping sheep per household

Purpose	N	%
1. Sale(cash income)	13	43.33
2. meat	8	26.67
3. sale and meat	7	23.33
4. manure	2	6.67
Total	30	100

This study was in line with that of Ibrahim (1998) urban and peri-urban production system was practiced in town and cities by wage earners who invest cash (sale) on sheep production for short-term profit. Sheep producers in the study area rear sheep for four main purposes: for Cash income, home slaughter, sale and meat and manure during festivals.

#### 4.3. Feed resources

Sources of sheep feeds in the study area are indicated on Table 4.3. The main feed resources for sheep production in the study area were natural pasture which is contributing (60%) and crop residue (40%). Natural pasture and crop residue was the main feed resource during the rainy season; natural pasture , crop stubble grazing and crop residue in the dry season. The sheep

producers in the study area were used supplementary feeds specially multiple feed which were contribute 26.67%, food left over and nug cake 16.67%, Dashen brewery by product and attela (10%), and supplement 20% minerals sources of salt

Table 4.3. Sources of sheep feed in the study area

Feed source	Respondents	%
1.Natural Pasture	18	60
2.Crop Residue	12	40
Supplementary feed type		
1.Food Left Over	5	16.67
2.Atella	3	10
3.Salt	6	20
4.Nuge Cake	5	16.67
5.Dashen Brewery by Product	3	10
6.Multiple Feed	8	26.67
Total	30	100

The main feed resource in the study area was natural pasture and crop residue. This result was agreed with that of the report of (Solomon *et al*, 2008a, 2008b) the major available feed resource for sheep were natural pasture, crop residue, agro-industrial by-product and cultivated improved forage crops.

#### 4.4. Marketing system in study Area

In the study area the marketing system were provide information flows from consumer to producer and vice –versa. There were three types of sheep market. i.e. primary, secondary and terminal market depends on the purpose of buyer. In the two selected market areas (Azezo and Auto parko) were sold and purchased in every market days. At Azezo (Kebele 20), the medium market area were predominant sold sheep, cattle and goat species. The second market place located in Auto parko (kebele 17) in that market place the predominant animals were sold sheep and goat.

During festivals the demand were very high and the animals sold by better prices. The minimum and maximum price of sheep in Gondar town was 600-2400 ETB per sheep. Marketing of sheep and goats was fluctuated on the bases of seasonality. This report were in line with that of the report of EARO (2000) demand and price increased during festival periods. Factors affecting market supply, as measured by the number offered, include high demand during religious festivals, quality and quantity of grazing.

Sheep marketing channels in Gondar town was indicated on the following diagram.

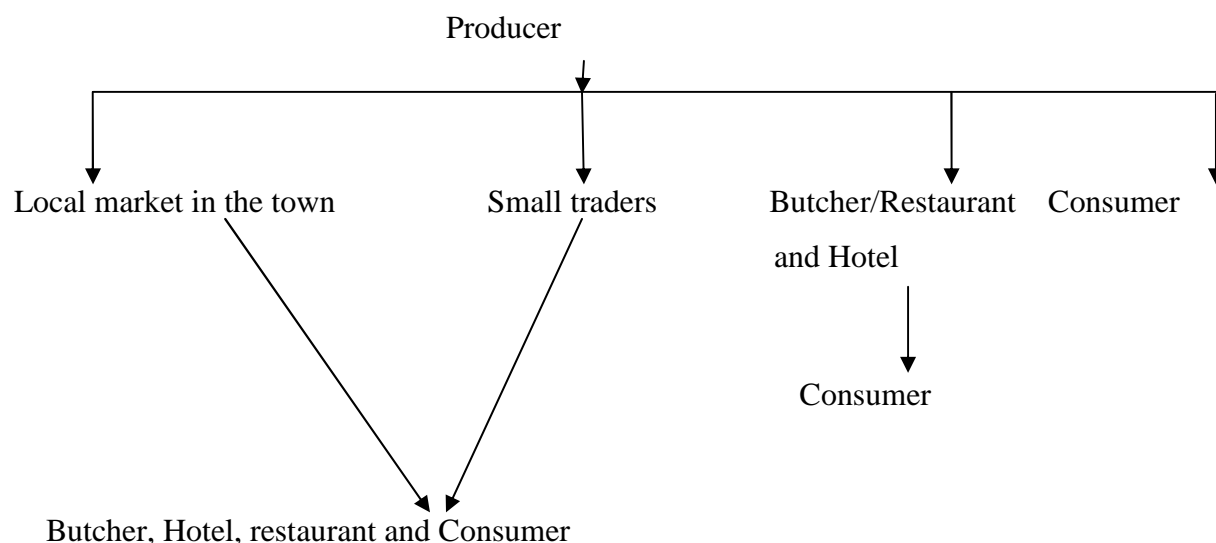


Fig 4.1. Diagram of market channel in the study area

#### 4.5. Major Constraint of Sheep Production in the Study Area

There were several sheep production constraints in the study area. From the total of respondents the major constraints of sheep production in the study area were shortage of feed and land which was contributing (40%) the other constraints were sheep diseases (26.67%), labor shortage (16.6%) market problem (10%) and lack of extension service (6.67%).

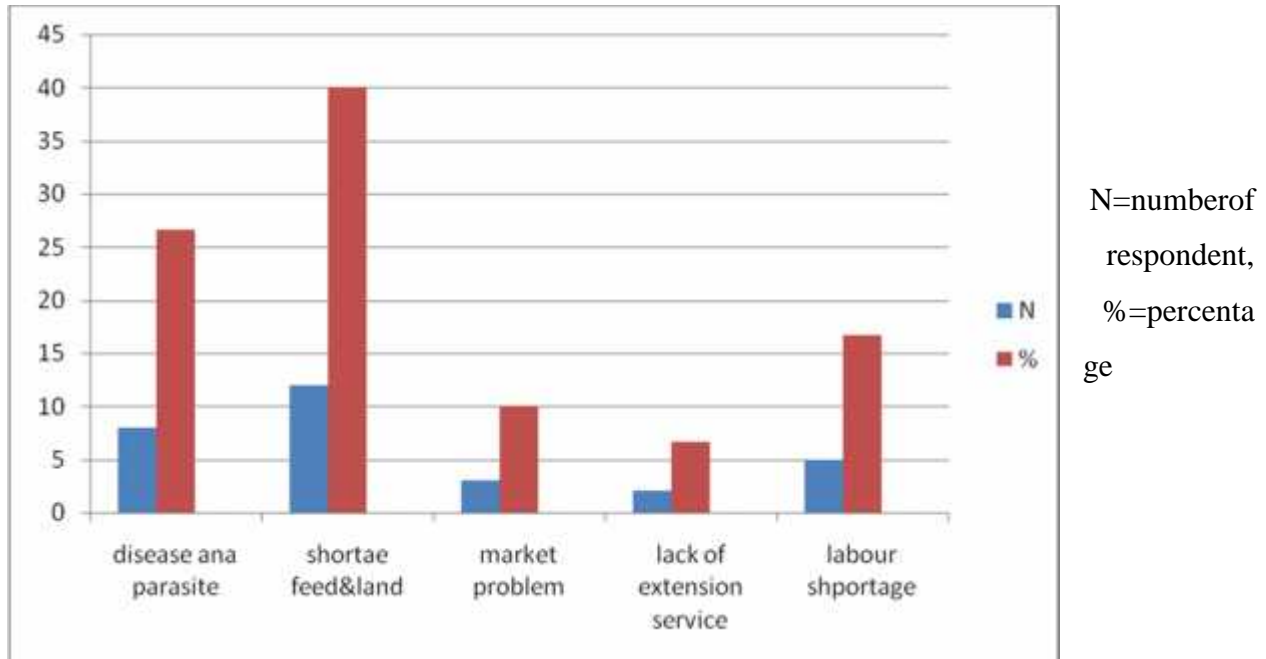


Fig. 4.2. Constraints of sheep production in Gondar town

The constraints of the study area were in line with that of the report of EARO (2001b), feed shortage, diseases and parasites, animal management, genotype and genetics and socio-economic and institutional constraints were the main problems in sheep production in the country. This study was also in line with that of Abebe *et al.* (2000), feed shortage in the dry and rainy season, diseases, inadequate veterinary service and lack of capital are the main Sheep production constraints in Lallomamma Miter Woreda, North Shoa.



## 5. CONCLUSION AND RECOMMENDATION

Generally, the overall results of the present study indicated that sheep production in Gondar town is one means of income generation for family. However, sheep diseases, feed shortage and land (technical constraint) are the main constraints which decrease sheep productivity and producers income in the area. The main purpose of sheep rearing in the study area is for sale (cash income). The feed sources in the study area are mainly natural pasture and crop residue and also provide supplement feed (food left over, attela, Dashen brewery by product, mineral salt and nuge cake). The purpose of keeping sheep in the study area is more of market-oriented. The market price is depending on body weight, colour, festivals, age and the health of sheep.

**Based on the above information it is recommended that:-**

- ❖ The government should give a great enfaces on Sheep feed improvement strategies and feed processing industries
- ❖ Agricultural rural development office must be provided an extension service to sheep producers
- ❖ There should be present sheep cooperatives
- ❖ Regular market information report should be announced by different communication methods.
- ❖ University of Gondar and Research centers should conduct a research on the productivity improvement of sheep in Gondar town.

Further researches on reproductive performance of sheep, carcass quality and breed types in Gondar town should be conducted.

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## **APPENDIX**



**UNIVERSITY OF GONDAR**  
**FACULTY OF VETERINARY MEDICINE**  
**DEPARTMENT OF ANIMAL PRODUCTION AND EXTENSION**

A Graduation Research Questionnaire on the Title

***“Sheep Production and Marketing System in Gondar Town”***

Name of Respondent \_\_\_\_\_ Keble \_\_\_\_\_

1. Gender                      1. Male                      2. Female
2. Marital status            1. Married                      2. Single                      3. Divorced
3. Age \_\_\_\_\_ (years)
4. Education level of house hold head    1. Illiterate    2. Reading and writing    3. Elementary School    4. Secondary school    5. Above secondary school    6. Spiritual education
5. Family size
  - a. Children (<15 years): Females \_\_\_\_\_ Males \_\_\_\_\_
  - b. Adults (15-65): Females \_\_\_\_\_ Males \_\_\_\_\_
  - c. Adults (>): Females \_\_\_\_\_ Males \_\_\_\_\_
6. Purpose of keeping Sheep
  1. Income source (sale)    2. Meat                      3. Milk                      4. Manure                      5. Sacrifice/rituals
  6. Social/cultural function    7. Saving (Insurance)    8. Risk/Benefit Distribution with other Animals    9. Other reasons \_\_\_\_\_

**Feeding System of Sheep**

1. Do you graze your sheep? 1=Yes 2=No
2. If yes, for how long? \_\_\_\_\_ days in a week \_\_\_\_\_ hours a day
3. How sheep's graze? 1. Sheep alone 2. Together with other livestock
4. How you practiced grazing your sheep in the dry season?
  1. Free grazing 2. Tethered grazing 3. Cut and carry
5. How you practiced grazing your sheep in the wet season?
  1. Free grazing 2. Tethered grazing 3. Cut and carry
6. Do you usually provide your sheep with supplementary feeds in addition to grazing?

1. Yes                      2. No

7. If yes, what type of feed and others?

NO	Feed type	Sheep
1.	Salt/local mineral salt	
2.	Cultivated fodder leaves	
3.	Wheat bran	
4.	Maize grain	
5.	Oil Cakes/meals	
6.	Fruit leftover	
7.	Food leftover	

8. When do you usually offer your sheep with supplements?

1. Dry season    2. Wet season    3. Both

9. How often do you offer supplements to your sheep?

1. Daily    2. Twice a day    3. Whenever available    4=Others, specify-----

10. If you are not provide with supplements, why?

1. Not accessible    2. Expensive    3. Not want to offer sheep    4. Others, specify-----

11. Is there any time in the year during which feeds for sheep and other livestock available surplus in you areas?

1. Yes                      2. No

12. Do you practice tether feeding of sheep?    1. Yes                      2. No

13. If yes, why?

1. To avoid crop and vegetation damages    2. Save labor    3. Protect from predators  
4. Utilize marginal land and hillsides    5. Control breeding    6. Others, specify-----

14. Is there feed shortage or constraint for your sheep?    1. Yes                      2. No

15. If yes, when?    1. Dry season    2. Wet season    3. Both

16. If feed shortage in your locality, why? (rank)

1. Shrinking and decline in productivity of grazing lands    2. Increase of animal population  
3. Cultivation, settlement and protection on grazing lands    4. Others, specify-----

## Sheep Health Management

1. What are the common diseases and parasites that affect health and production of sheep

No	Local name	affect	symptom	season	Sheep type
1.					
2.					
3.					
4.					
5.					
6.					

2. What would you do when your sheep sick?

1. Treat with ethno veterinary practices
2. Sales immediately
3. Slaughters immediately
4. Takes to veterinary center
5. Take to or treat with treatments of local traders
6. Others, specify-----

3. Are you accessible to veterinary services in your locality/near distance? 1. Yes 2. No

4. If yes, how far? \_\_\_\_\_Km

5. From where you usually obtain veterinary services?

1. OARD
2. DA offices
3. NGOs
4. Private institutions
5. Open markets

6. What are the common problems of sheep health management in this area?

1. Widespread of diseases and parasites
2. Shortage of feeds and water in the area
3. Lack/shortage of veterinary institutions
4. Lack of animal health professions
5. Lack/shortage of drugs and medicines
6. Unaffordable prices for services



7. Drought in the area

8. Others, specify-----

### **Lamb Rearing, Castration and Culling**

1. Do you practice weaning lambs? 1. Yes 2. No
2. If yes, when? Lambs\_\_\_\_\_ months
3. Do practice castration of male sheep? 1. Yes 2. No
4. If yes, why? 1. To fetch more price (by fattening) 2. To avoid mate their flock with these males 3. Others, specify \_\_\_\_\_
5. At what age you castrate? Sheep \_\_\_\_\_ months
6. What is the common ways of castrating your sheep?
  1. local method ( stick, metal, others) 2. Burdizo (OoARD) 3. Others-----
7. Do you practice fattening of sheep for target market seasons and market places?
  1. Yes 2. No
8. If yes, which season/months and rank?
  1. New Year festival 2. Ester 3. Christmas
  4. Meskel 5. Ed al Fetir 6. Others, specify \_\_\_\_\_
9. Do you practice culling of sheep from flock? 1. Yes 2. No
- 11 . If yes, why (rank)? 1. Oldage 2. Sickness 3. Lambing problems 4. Physical defect 5.Unwanted physical characteristics 7. Others, specify \_\_\_\_\_

### **Marketing Of Sheep Products And By-Product**

1. Have you sold your sheep? 1. Yes 2. No
2. If yes, why? (Rank)
  1. Obtain cash for farm inputs (fertilizer, seed, others) 4. Shortage of grazing land and feeds
  2. Obtain cash income for children school 5. Cash to purchase foods
  3. Obtain cash for family and animal health treatments
  6. Others, specify\_\_\_\_\_
3. Where you sell your animals?
  1. Farmers in the same village 2. Farmers in nearby village
  3. Direct bluchers (hotel) 4. Others small towns specify-----
- 
4. Have you purchased sheep? 1. Yes 2. No
5. Why did you purchase sheep?

1. Slaughter for festivals 2. Slaughter for ceremonies/rituals 3. Breeding 4. fattening
5. others-----

6. If yes, from where did you purchase?

1. Farmers in the same village 2. Farmers in nearby village

7. How you sales or purchases your animals?

1. Live weight basis 2. Other judgment (parameters-----

8. Did you ever get animal price and market information?

1. Yes 2. No

8. If yes, from where?

1. Das 2. Governmental organizations, specify-----
3. NGOs 4. Others, specify

9. Do you face any problem in marketing of your animals? 1. Yes 2. No

10. If yes, what?

1. Tax burden 2. Unwanted broker disorder and high commission fees
3. Seasonality of market demand and prices 4. Lack of market road from my areas
5. Lack of market and price information 6. Others, specify

### **Constraints and Prospects of Sheep Production and Marketing**

1. What are major constraints hinder production of sheep in this area? (Rank)

No	Reason	Rank
1.	Disease and parasites	
2.	Feed and grazing land shortages	
3.	Water shortage	
4.	Labor shortage	
5.	Drought	
6.	Predators	
7.	Marketing problems	
8.	Inadequate/lack of inputs	
9.	Inadequate/lack of extension and support	
10.	Inadequate/lack of technologies and innovations	
11.	Lack of credits	

2. Do you want to expand sheep flock sizes and production in the future?

1. Yes 2. No

## ***DECLARATION***

We, the under signed, declare that the information presented here in our senior research project is our original work, has not been presented for degree in any other university and that sources of materials that used for the research and report have been duly acknowledged.

*Name:* \_\_\_\_\_  
\_\_\_\_\_

*Signature:* \_\_\_\_\_

*Daate of submission:* \_\_\_\_\_

*This thesis has been submitted for examination with our approval as university advisor*

*Name:* \_\_\_\_\_

*Signature:* \_\_\_\_\_

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